





**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
(Cas No. 00-431-BB)

In the Application of:

Smith et al.

Serial No.: 10/600,952

Filing Date: June 20, 2003

For: Process for the Production of HCMB  
Glycoproteins, Antibodies Thereto and HCMV  
Vaccines, and Recombinant Vectors Therefor

Examiner: TBA

Group Art Unit: TBA

Confirmation No.: TBA

**INFORMATION DISCLOSURE STATEMENT**

**Honorable Commissioner of Patents and Trademarks**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Pursuant to 37 C.F.R. §1.98(d), copies of references numbered 1-27 are not provided herewith, since they were previously filed in the parent application.

Applicants do not believe any fee is due with this submission. If this belief be in error and the Patent Office determines that the fee prescribed in the relevant portion of 37 C.F.R. Section 1.97 is applicable, the undersigned attorney by his signature hereby authorizes any such fee to be debited from Deposit Account 13-2490.

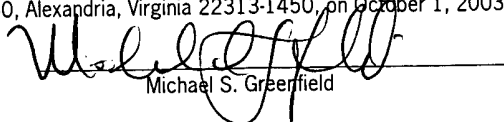
**U. S. PATENTS**

1. Buckley, et al., U.S. Patent No. 4,670,382, issued June 2, 1987.
2. Rasmussen et al., U.S. Patent No. 4,743,562, issued May 10, 1988.

**CERTIFICATE OF MAILING (37 C.F.R. 1.8a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on October 1, 2003.

Date: October 1, 2003

  
Michael S. Greenfield

3. Pereira, U.S. Patent No. 4,689,225, issued August 25, 1987.
4. Spector et al., U.S. Patent No. 4,762,780, issued August 9, 1988.
5. Paoletti et al., U.S. Patent No. 4,743,848, issued February 1988.

## **FOREIGN PATENT DOCUMENTS**

6. European Patent No. 0110385, published November 6, 1984.
7. German Patent No. 3619720, published December 17, 1987.
8. European Patent No. 0252302, published January 13, 1988.

## **OTHER DOCUMENTS**

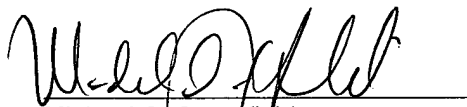
9. Dictionary of Science and Technology, Academic Press, 2000,  
<http://www.harcourt.com/dictionary/def/6/6/3/8/6638700.html>.
10. Rasmussen et al., PNAS (USA) 81:876-880, February 1984.
11. Borysiewicz et al., "Human Cytomegalovirus-Specific Cytotoxic T. Cells" J. Exp. Med. (1988) 168:919-931.
12. Britt, "Neutralizing Antibodies Detect a Disulfide-Linked Glycoprotein Complex Within the Envelope of Human Cytomegalovirus" Virology 135:369-378.
13. Cranage et al., "Identification and Expression of Human Cytomegalovirus Glycoprotein with Homology to the Epstein-Barr Virus BXLF2 Product, Varicella-Zoster Virus gpIII, and Herpes Simplex Virus Type I Glycoprotein H" J. of Virology (1988) 62:1416-1422.
14. Cranage et al., Chemical Abstracts (1986) 106:no. 62013x.
15. Cranage et al., "Identification of the Human Cytomegalovirus Glycoprotein in B Gene and Induction of Neutralizing Antibodies Via its Expression in recombinant Vaccinia Virus" EMBO Journal (1986) 5:3057-3063.
16. Farrar et al., Vaccine (1986) 4:217-224.
17. Mach et al., "Mapping of the Major Glycoprotein Gene of Human Cytomegalovirus" J. Gen. Virol. (1986) 67:1461-1467.
18. Martiney et al. J. Virology (1986) 60:531-38.
19. Mocarski et al., "Precise localization of genes on large animal virus genomes: Use of gt11 and monoclonal antibodies to map the gene for a cytomegalovirus protein family" PNAS USA (1985) 82:1266-1270.
20. Pande et al., "Cloning and physical mapping of a gene fragment coding for a 64-kilodalton major late antigen of human cytomegalovirus" Microbiology (1984) 81:4965-4969.
21. Pereira et al., "Monoclonal Antibodies to Human Cytomegalovirus: Three Surface Membrane Proteins with Unique Immunological and Electrophoretic Properties Specify Cross-Reactive Determinants" Infection and Immunity (1982) 36:924-932.

22. Pereira et al., "Cytomegalovirus-infected Cell Polypeptides Immune-Precipitated by Sera from Children with Congenital and Perinatal Infections" *Infection and Immunity* (1983) 39:100-108.
23. Pereira et al., "Polymorphism of Human Cytomegalovirus Glycoproteins Characterized by Monoclonal Antibodies", *Virology* (1984) 139:73-86.
24. Rasmussen et al., "Human Polypeptides Detected by a Complement-Dependent Neutralizing Murine Monoclonal Antibody to Human Cytomegalovirus" *J. Virology* (1985) 55:274-280.
25. Rasmussen et al., "Human Cytomegalovirus Polypeptides Stimulate Neutralizing Antibody in Vivo" *Virology* (1985) 145:186-190.
26. Suggs et al., "Use of Synthetic oligonucleotides as hybridization probes" *PNAS* (1981) 78:6613-6617.
27. European Search Report, Application No. EP 87 30 2001.

Respectfully submitted,  
**McDonnell Boehnen Hulbert & Berghoff**

Date: October 1, 2003

By:

  
Michael S. Greenfield  
Reg. No. 37,142

Telephone: 312-913-0001  
Facsimile: 312-913-0002

**McDonnell Boehnen Hulbert & Berghoff**  
300 South Wacker Drive, 32<sup>nd</sup> Floor  
Chicago, IL 60606

FORM PTO-1449  
(Rev. 2-32)U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.

00-431-BB

Serial No.

10/600,952

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

Smith et al.

Filing Date:

June 20, 2003

Group:

TBA

## U.S. PATENT DOCUMENTS

| Examiner Initial |    | Document Number | Date            | Name             | Class | Subclass | Filing Date if Appropriate |
|------------------|----|-----------------|-----------------|------------------|-------|----------|----------------------------|
|                  | 1. | 4,670,382       | June 2, 1987    | Buckley et al.   | 435   | 7.31     | January 16, 1984           |
|                  | 2. | 4,743,562       | May 10, 1988    | Rasmussen et al. | 436   | 518      | August 21, 1984            |
|                  | 3. | 4,689,225       | August 25, 1987 | Pereira          | 436   | 518      | November 2, 1984           |
|                  | 4. | 4,762,780       | August 9, 1988  | Spector et al.   | 435   | 6        | January 5, 1987            |
|                  | 5. | 4,743,848       | February 1988   | Paoletti et al.  | 424   |          |                            |

## FOREIGN PATENT DOCUMENTS

|  |    | Document Number | Date              | Country | Class | Subclass | Translation |    |
|--|----|-----------------|-------------------|---------|-------|----------|-------------|----|
|  |    |                 |                   |         |       |          | Yes         | No |
|  | 6. | 0110385         | November 6, 1984  | Europe  |       |          |             |    |
|  | 7. | 3619720         | December 17, 1987 | Germany |       |          |             |    |
|  | 8. | 0252302         | January 13, 1988  | Europe  |       |          |             |    |

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

|  |  |     |                                                                                                                                                                                                        |
|--|--|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | 9.  | Dictionary of Science and Technology, Academic Press, 2000,<br><a href="http://www.harcourt.com/dictionary/def/6/6/3/8/6638700.html">http://www.harcourt.com/dictionary/def/6/6/3/8/6638700.html</a> . |
|  |  | 10. | Rasmussen et al., PNAS (USA) 81:876-880, February 1984.                                                                                                                                                |
|  |  | 11. | Borysiewicz et al., "Human Cytomegalovirus-Specific Cytotoxic T. Cells" J. Exp. Med. (1988) 168:919-931.                                                                                               |



|          |  |     |                                                                                                                                                                                                                                                              |
|----------|--|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |  |     | Britt, "Neutralizing Antibodies Detect a Disulfide-Linked Glycoprotein Complex Within the Envelope of Human Cytomegalovirus" Virology 135:369-378.                                                                                                           |
|          |  | 13. | Cranage et al., "Identification and Expression of Human Cytomegalovirus Glycoprotein with Homology to the Epstein-Barr Virus BXL2 Product, Varicella-Zoster Virus gpIII, and Herpes Simplex Virus Type I Glycoprotein H" J. of Virology (1988) 62:1416-1422. |
|          |  | 14. | Cranage et al., Chemical Abstracts (1986) 106:no. 62013x.                                                                                                                                                                                                    |
|          |  | 15. | Cranage et al., "Identification of the Human Cytomegalovirus Glycoprotein in B Gene and Induction of Neutralizing Antibodies Via its Expression in recombinant Vaccinia Virus" EMBO Journal (1986) 5:3057-3063.                                              |
|          |  | 16. | Farrar et al., Vaccine (1986) 4:217-224.                                                                                                                                                                                                                     |
|          |  | 17. | Mach et al., "Mapping of the Major Glycoprotein Gene of Human Cytomegalovirus" J. Gen. Virol. (1986) 67:1461-1467.                                                                                                                                           |
|          |  | 18. | Martiney et al. J. Virology (1986) 60:531-38.                                                                                                                                                                                                                |
|          |  | 19. | Mocarski et al., "Precise localization of genes on large animal virus genomes: Use of gt11 and monoclonal antibodies to map the gene for a cytomegalovirus protein family" PNAS USA (1985) 82:1266-1270.                                                     |
|          |  | 20. | Pande et al., "Cloning and physical mapping of a gene fragment coding for a 64-kilodalton major late antigen of human cytomegalovirus" Microbiology (1984) 81:4965-4969.                                                                                     |
|          |  | 21. | Pereira et al., "Monoclonal Antibodies to Human Cytomegalovirus: Three Surface Membrane Proteins with Unique Immunological and Electrophoretic Properties Specify Cross-Reactive Determinants" Infection and Immunity (1982) 36:924-932.                     |
|          |  | 22. | Pereira et al., "Cytomegalovirus-infected Cell Polypeptides Immune-Precipitated by Sera from Children with Congenital and Perinatal Infections" Infection and Immunity (1983) 39:100-108.                                                                    |
|          |  | 23. | Pereira et al., "Polymorphism of Human Cytomegalovirus Glycoproteins Characterized by Monoclonal Antibodies", Virology (1984) 139:73-86.                                                                                                                     |
|          |  | 24. | Rasmussen et al., "Human Polypeptides Detected by a Complement-Dependent Neutralizing Murine Monoclonal Antibody to Human Cytomegalovirus" J. Virology (1985) 55:274-280.                                                                                    |
|          |  | 25. | Rasmussen et al., "Human Cytomegalovirus Polypeptides Stimulate Neutralizing Antibody in Vivo" Virology (1985) 145:186-190.                                                                                                                                  |
|          |  | 26. | Suggs et al., "Use of Synthetic oligonucleotides as hybridization probes" PNAS (1981) 78:6613-6617.                                                                                                                                                          |
|          |  | 27. | European Search Report, Application No. EP 87 30 2001.                                                                                                                                                                                                       |
| EXAMINER |  |     | DATE CONSIDERED                                                                                                                                                                                                                                              |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.